



Climatic and other responses to the Lakagígar 1783 and Tambora 1815 volcanic eruptions in the Czech Lands

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Using documentary data and long-term temperature and precipitation series for the years 1775–2007, climatic, weather and other phenomena in the Czech Lands following the 1783 Lakagígar eruption in Iceland and the 1815 Tambora eruption in Indonesia are investigated. The two eruptions differed significantly in magnitude and distance from central Europe. The Lakagígar eruption had clear post-volcanic effects on the weather in central Europe (dry fog, heavy thunderstorms, optical phenomena), with the occurrence of significant cold temperature anomalies in winter 1783/84, spring 1785 and the summer and autumn of 1786. The Tambora eruption, as one of the most powerful eruptions in recorded history, was not accompanied by any particular weather phenomena, but was followed by an extremely cold summer in 1816, which became known as the “Year without a Summer”. This contributed to bad grain harvests and widespread grain price increases, culminating in 1817. Comparison of the two eruptions shows that the effects of the Lakagígar eruption in the Czech Lands were climatologically stronger than those of the Tambora eruption, while the opposite held for societal responses.